## PATENT ABSTRACTS OF JAPAN

(11)Publication number:

2002-043422

(43)Date of publication of application: 08.02.2002

(51)Int.CI.

H01L 21/768 H01L 21/316

(21)Application number: 2000-222718

(71)Applicant: TOKYO OHKA KOGYO CO LTD

(22)Date of filing:

24.07.2000

(72)Inventor: FUJII YASUSHI

MATSUSHITA ATSUSHI

## (54) METHOD FOR PROCESSING FILM AND METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE USING THE SAME

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a method for processing a film wherein a silica film (interlayer insulating film) is hardly damaged in ashing a resist pattern.

SOLUTION: The silica type film with a low dielectric constant formed on a substrate is etched using the resist pattern. Then the silica type film subsequent to the etching process is treated by a plasma induced by a mixing gas of nitrogen and hydrogen or by an ammonia gas. Thus, the silica type film is not damaged in the post-process of ashing the resist pattern and the low dielectric constant can be maintained.

## LEGAL STATUS

[Date of request for examination]

24.10.2002

[Date of sending the examiner's decision of

rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office